

426/16

VERAGES

33

195, ALCOHOL,
Beer.1896
①

RECORDED

Beer

94
45

N° 21,118



A.D. 1896

Date of Application, 23rd Sept., 1896—Accepted, 21st Nov., 1896

COMPLETE SPECIFICATION.

New or Improved Process for Adding Iron to Beer.

I, JOSEF KWIATKOWSKI, of Sereth, Bukowina, in the Empire of Austria, Chemist, do hereby declare the nature of this invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

- 5 Beer to which iron is added by the process forming the subject of this invention is easily pasteurised, it possesses a pleasant taste, and great brightness, it absorbs considerably more carbonic acid, exhibits a more compact and lasting foam, and keeps better than ordinary beer. Beer treated by this process and containing 0.05 gramme of iron per litre is generally applicable as a preventive remedy for
- 10 illnesses arising from poorness of blood. Beer with a higher proportion of iron is to be preferred as a superior hygienic drink to all the iron waters and iron preparations at present in use, on account of its pleasant taste and very great digestibility.

- 15 These advantages produced by the addition to the beer of dissolved lactate of iron.

The lactate of iron may be added to the beer after the first fermentation, and whilst the beer is being pumped from the fermenting vat to the store vat; or it may be added to the finished beer while the latter is being drawn off into the casks.

- 20 The greatest quantity of lactate of iron that can be added to the beer per litre is 0.6 gramme. The heavy sixteen *per cent.* black bock-beers or porters contain 0.1 to 0.6 gramme, because the high dried aromatic malt used therein covers the taste of the iron. For light beers 0.05 gramme per litre is a suitable quantity.

- Let it be required to add to 20 hectolitres of beer 0.3 gramme of iron per litre;
- 25 0.3×2000 , equal 600 grammes of the freshest possible lactate of iron are dissolved in the smallest possible quantity of well boiled, clarified boiling water and filtered. If the lactate of iron is quite fresh, 1 part of lactate of iron may be used to 12 parts of boiling water; but if it is stale 30 to 40 parts of boiling water are required to one part of lactate.

- 30 The solution of lactate of iron is allowed to flow from a funnel provided with a tap, through a glass tube (to enable the flow to be observed) into an iron tube through which the beer is flowing, and is thus mixed intimately with the beer. Or the beer and solution of lactate of iron are allowed to flow simultaneously into a tub or other vessel from whence the mixture is pumped into the store vat. The
- 35 chief point in this operation is that the iron must only be added to the beer in small and regular quantities. 600 grammes added at once to the beer would make it cloudy. A certain quantity of lactate of iron must be immediately mixed thoroughly with the corresponding quantity of beer.

- As commercial lactate of iron is generally not very fresh, and requires a great
- 40 deal of water to dissolve it, it is advisable to make the lactate of iron as wanted. It is easily obtained as a solution containing 0.63 grammes of lactate of iron in 5 cubic centimetres, when the lactic acid has a specific gravity of 1.21. Or a ready prepared solution of lactate of iron can be obtained containing a known quantity of lactate of iron.

- 45 The solution of lactate of iron should only be made a few hours before it is required for use, because it crystallizes out if left standing a long time.

[Price 8d.]

Kwiatkowski's New or Improved Process for Adding Iron to Beer.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is:—

The process for adding iron to beer which consists in mixing with the beer dissolved lactate of iron, substantially as described. 5

Dated this 18th day of September 1896.

J. KWIATKOWSKI,
Per W. H. Beck,
115 Cannon Street, London, E.C., Agent.

London: Printed for Her Majesty's Stationery Office, by Darling & Son, Ltd.—1896